

# **FEDERAL AVIATION ADMINISTRATION**

## **BUDGET IN BRIEF**

**Fiscal Year 1994**





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## OVERVIEW

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The President is proposing \$9.2 billion for the Federal Aviation Administration's (FAA) in FY 1994. This is \$61 million (0.7 percent) above the FY 1993 enacted level. The budget continues to propose 75 percent of FAA's request come from the Airport and Airway Trust Fund.

The FY 1994 budget is structured around the Administration's theme of increasing public and private investment, cutting waste and making government operations more responsive to the American people. Our agency's challenge is to manage effectively in an environment of dwindling resources and increasing demand for our services.

### Investment Proposal

This budget proposes a total of \$149.7 million in investment programs as outlined in *A Vision of Change for America*. The investment program proposes major additions to ongoing activities that expand America's capacity to produce and provide opportunities for current and future workers. In airport improvement \$30.4 million is proposed to support airport capacity development, safety and security needs. Facilities and Equipment funding of \$106.7 million will support the multi-year air traffic control modernization program specifically for programs in implementing the advanced automation system, the voice switching and control system, and weather radar systems. Research and development funding of \$12.6 million is proposed to improve the national air traffic control system by increasing safety and capacity to meet air traffic demands of the future.

### General Aviation (GA) Registration Fee

The Administration's report *A Vision of Change for America* proposes a broad based tax and additional registration fees for general aviation. The registration fee will be collected by the Secretary of the Treasury from registered owners for each aircraft registered pursuant to title V of the Federal Aviation Act of 1958. The fee will cover a one-year period beginning on the date when a fee is payable, regardless of any changed registration status during the period. Fees collected will be credited to the Airport and Airway Trust Fund. Exemptions apply to aircraft that are used to provide air transportation as defined in section 101 of the Federal Aviation Act of 1958; owned by, or operated by or for, the United States Government; or registered under a dealer's aircraft registration certification pursuant to section 505 of the Federal Aviation Act of 1958. In FY 1994 the fee will generate approximately \$18.2 million in additional trust fund revenue.



## OVERVIEW

### Operations

For FAA Operations, the FY 1994 request totals \$4.6 billion, less than 1 percent increase over FY 1993. This budget proposes a reduction in the FAA workforce. Specifically, we are reducing 1,386 direct full-time equivalents (FTE) 952 in FY 1993; 434 in FY 1994, terminating our pay demonstration project 9 months early, discontinuing the subsidy to only two of the vendors who provide DUAT like services, and reducing administrative expenses. The FTE reductions are proposed to be taken through attrition.

### Facilities and Equipment

The FY 1994 request for Facilities and Equipment (F&E) is \$2.5 billion, a 7.4 percent increase over FY 1993. Included in this request are capital needs contained in the FAA's Capital Investment Plan (CIP). Projects include the Advanced Automation System (AAS) to upgrade air traffic control (ATC) computer technology, the Voice Switching and Control System (VSCS) to modernize the system's communications network and the Terminal Doppler Weather Radar (TDWR) and Long Range Radar (LRR) to improve weather services and replace obsolete en-route radar.

### Research, Engineering and Development

For Research, Engineering and Development (R,E&D) the budget requests \$250 million, an 8.7 percent increase over FY 1993. The R,E&D budget focuses on increased initiatives in satellite navigation, aircraft safety technology, primarily aging aircraft, security technology, specifically aircraft hardening, and human factors research along with the ongoing development of safety and capacity programs.

### Airport Improvement Program

The President's Budget provides \$1.879 billion (obligation limitation) in FY 1994 for planning and development of the nation's airports. This amount will fund formula grants for airport development projects at commercial airports, as well as grants to states to improve smaller airports. The Aviation Safety and Capacity Expansion Act of 1990 (P.L. 101-508) authorized the establishment of the passenger facility charge (PFC) by local authorities who choose to do so. The proceeds from PFC's will be a major source of funding to finance eligible airport-related projects that preserve or enhance capacity, safety or security of the national air transportation system, reduce noise, or furnish opportunities for enhanced competition between or among air carriers. The eventual impact of the PFC translates to an additional billion dollars worth of airport improvement and development resources.



## OVERVIEW

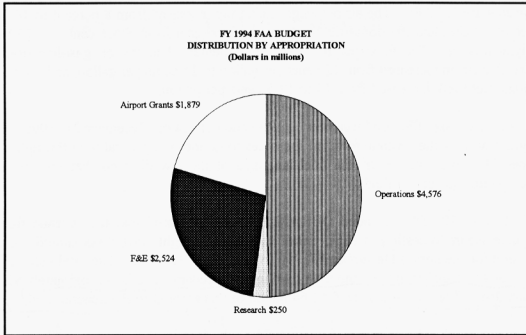


Figure 1

### Airport Improvement Program Economic Stimulus

The proposed \$250 million FY 1993 economic stimulus package provides grants to airports for airport development projects, including those which expand capacity, increase safety, speed air travel and mitigate noise. Funding level is limited to a level that could be placed under construction quickly and includes projects that generally would otherwise seek funding in FY 1994. Criteria for distribution of funds include projects where construction or procurement can be started in 60 days from enactment and that meet valid airport development requirements. Approximately 775 jobs would be generated in FY 1993 and 2,400 in FY 1994.

### Airport and Airway Trust Fund

Public Law 102-581, Airport and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992, extended FAA's programs over different periods of time, placing the agency's accounts on separate reauthorization cycles. The authorization for FAA's Airport Improvement Program expires October 1, 1993. Authorization for Research, Engineering and Development expires October 1, 1994, and authorization for Facilities and Equipment and FAA operations expires October 1, 1995.



## OVERVIEW

The Omnibus Budget Reconciliation Act of 1990 (OBRA90) increased (by 25 percent) the domestic passenger ticket tax, the freight waybill tax, and the non-commercial (general aviation) fuels tax. (The international departure tax was previously increased from \$3 to \$6 per passenger, effective January 1, 1990.) The air passenger ticket tax increased from 8 percent to 10 percent of the price of a ticket and the domestic air cargo tax increased from 5 percent to 6.25 percent of the freight waybill. The fuels tax has two components: The tax on gasoline used in non-commercial aviation increased from 12 cents per gallon to 15 cents per gallon, and the tax on non-commercial (jet fuel) increased from 14 to 17.5 cents per gallon.

The tax increase took effect on December 1, 1990 and expires on December 31, 1995. The intent of Congress was for the revenue from the increases to go into the general fund through December 31, 1992. However, the final language of the law directed that only the fuels tax increase go into the general fund.

Title V of P.L. 102-581 amended OBRA90 law and stipulated that the revenue from the 25 percent increase in domestic passenger ticket tax and the freight waybill tax should remain in the general fund for the period December 1, 1990 to December 31, 1992. The total value of taxes to be shifted by this legislation from the trust fund into the general fund is approximately \$1.8 billion.

In January 1993, Treasury transferred \$1.64 billion of this amount to the general fund. *delete*

The following graph reflects that in FY 1994 FAA's budget is 22.5 percent of the Department's \$40.3 billion total budget in appropriations and obligation limitations.

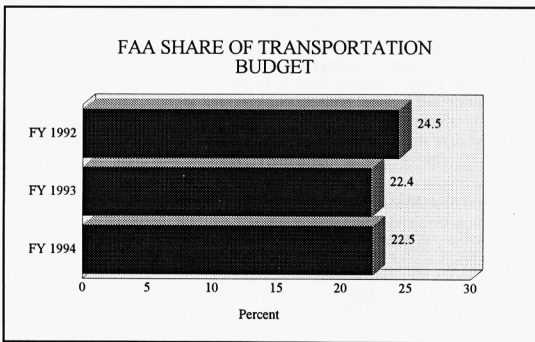


Figure 2



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## OVERVIEW

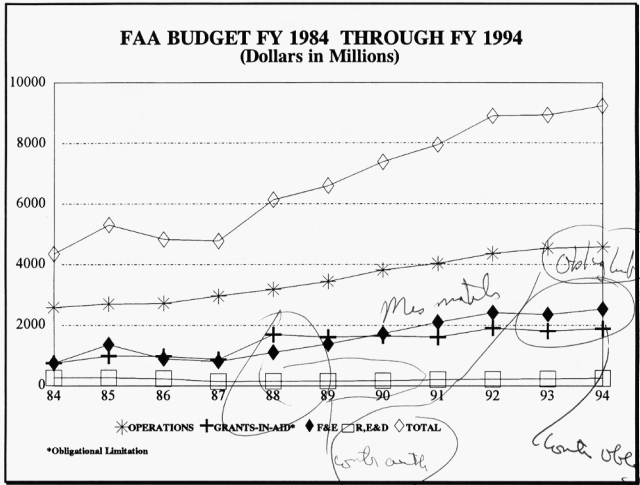


Figure 3

The FY 1994 budget requests \$4.6 billion and 48,922 direct full-time equivalent (FTE) workyears to support FAA operations. The FY 1994 obligation limitation for Grants-in-Aid for Airports is \$1.879 billion, which includes \$30.4 million infrastructure investment. To modernize and improve the nation's airspace system (NAS) and to improve air traffic control and airway facilities services, the FAA requires \$2.5 billion, of which \$107 million will be applied to investment. \$250 million is requested to support research in FAA's major mission areas of safety, security, capacity and efficiency. Approximately \$13 million of research funding is designated for investment purposes.



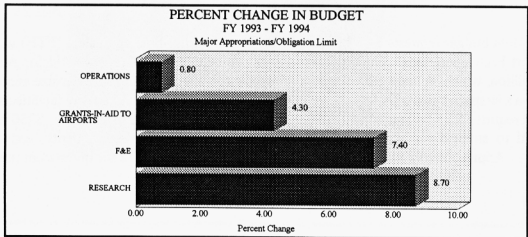
## OVERVIEW

**Table 1**

### Summary of Funds (Dollars in millions)

<u>Appropriation</u>	<u>FY 1993 Enacted</u>	<u>Change</u>	<u>FY 1994 Request</u>
Operations	4,538.0	38.0	4576.0
(General)	2,258.7	48.5	2307.2
(Trust)	2,279.3	(10.5)	2268.8
Grants-In-Aid-Airports			
Obligation Limitation	1,800.0	48.6	1848.6
Investment	0.0	30.4	30.4
Stimulus Supplemental	250.0 1/	(250.0)	0.0
Facilities and Equipment	2,350.0	67.3	2417.3
Investment	0.0	106.7	106.7
Research, Engineering and Development	230.0	7.4	237.4
Investment	0.0	12.6	12.6
TOTAL	9,168.0	61.0	9229.0
(General)	2,258.7	48.5	2307.2
(Trust)	6,659.3	12.5	6921.8
Contract Authority			
Grants-In-Aid-Airports	2,050.0	(201.4)	1848.6

1/ Proposed Stimulus Supplemental.



**Figure 4**



## OVERVIEW

Table 2

### FAA STAFFING LEVELS

	FY 1992		FY 1993		FY 1994	
	Actual		Enacted Level (Revised)		Request	
<u>OPERATIONS</u>	<u>POS</u>	<u>FTE</u>	<u>POS</u>	<u>FTE</u>	<u>POS</u>	<u>FTE</u>
Operations of Traffic Control System	28,070	27,361	27,386	26,696	26,756	26,562
NAS Logistics	1,338	1,758	1,389	1,315	1,323	1,288
Maintenance of Traffic Control System	10,848	10,167	10,991	10,299	10,579	10,178
Aviation Regulation & Certification	5,417	4,442	5,420	4,320	5,348	4,305
Aviation Standards	1,396	1,201	1,414	1,235	1,346	1,208
Civil Aviation Security	1,031	840	1,031	858	997	845
NAS Design & Management	565	303	529	591	529	579
Administration of Airports Program	550	526	550	519	522	508
Direction, Staff & Supporting Services	1,182	1,442	1,434	1,419	1,434	1,389
Human Resources Management	1,461	1,573	1,533	1,550	1,457	1,519
Headquarters Administration	<u>493</u>	<u>501</u>	<u>574</u>	<u>554</u>	<u>574</u>	<u>541</u>
SUBTOTAL, OPERATIONS	52,351	50,114	52,251	49,356	50,865	48,922
<u>FACILITIES AND EQUIPMENT</u>	2,204	1,733	2,504	2,200	2,504	2,300
<u>RESEARCH, ENGINEERING AND DEVELOPMENT</u>	645	754	645	692	645	692
<u>AVIATION INSURANCE</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
TOTAL, DIRECT PROGRAM	55,202	52,603	55,402	52,250	54,016	51,916
<u>REIMBURSABLE</u>						
Operations	490	364	490	516	490	390
Facilities and Engineering	55	51	55	55	55	55
Research, Engineering and Development	<u>6</u>	<u>3</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
TOTAL, REIMBURSABLE	551	418	551	577	551	451
GRAND TOTAL	55,753	53,021	55,953	52,827	54,567	52,367

*Excludes non safety*





## OPERATIONS

The FY 1994 budget for the Federal Aviation Administration's Operations appropriation places continued emphasis on safety, security and efficiency of the national airspace system. In support of this, \$4,576 million is required, a .8 percent (\$38 million) increase above the FY 1993 funding level. The budget includes funding for 48,922 FTEs. Seventy-six percent of the request supports payroll costs with contracts and rent, communications, and utilities accounting for most of the balance. (Figure 5)

The majority of the \$38 million funding increase is to cover inflation, annualization, and other mandatory or non-discretionary cost increases for FY 1994.

The Operations appropriation budget consists of twelve major activities (Figure 6) which provide essential support to the aviation system. Nine out of ten individuals in Operations perform essential safety related duties or directly manage those personnel and programs. Other personnel and activities provide the support which is essential to keep spare parts moving, to train personnel and to prevent fraud, waste and mismanagement.

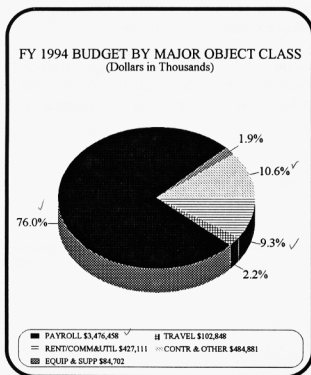


Figure 5

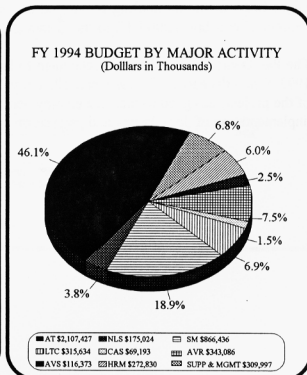


Figure 6



## OPERATIONS

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### **Air Traffic - 26,756 Positions and \$2,107,427,000**

This activity supports 24 hour air traffic control service for the United States, U.S. territories and U.S. possessions. With the aid of radar, communications, and other facilities, air traffic control personnel at 24 centers monitor and control en route flights of civil and military aircraft conducted under instrument flight rules to assure safety and to expedite the flow of traffic. Over 400 control towers are operated at airports. Approximately 115 flight service stations (FSS) and 59 automated FSS's provided weather and aeronautical information to pilots, process flight plans, and provide in-flight advisory and emergency service in FY 1992.

End-of-year on-board controller work force (CWF) staffing in FY 1992 was 17,982. CWF end-of-year on-board staffing for FY 1993 is expected at 17,871 and will remain at that level in FY 1994. The administration's civilian employment reduction program will not impact the CWF.

The forecasted decrease of 3.35 percent in flight services for FY 1994 will allow the reduction of Flight Service Station staffing to an end-of-year figure of 3,850. The Flight Service Station reduction contributes 200 FTE to the agency's Civilian Employment Reduction effort.

The Pay Demonstration Project, scheduled to lapse on June 17, 1994, will end on September 18, 1993, 9 months early. The early cancellation will save the agency \$20,000,000. The termination of the project, designed to increase employment at hard to staff facilities, will be mitigated by the implementation of locality pay and pay reform.





## OPERATIONS

FAA expects actual aircraft traffic in FY 1993 to approximate the level of traffic in FY 1990. Key air traffic workload indicators for FY 1990-92 are shown in the following two graphs:

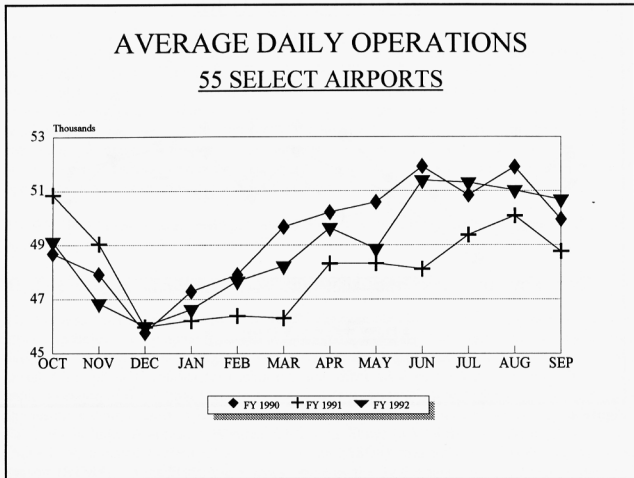


Figure 7



## OPERATIONS

### AVERAGE DAILY OPERATIONS 20 CONUS CENTERS

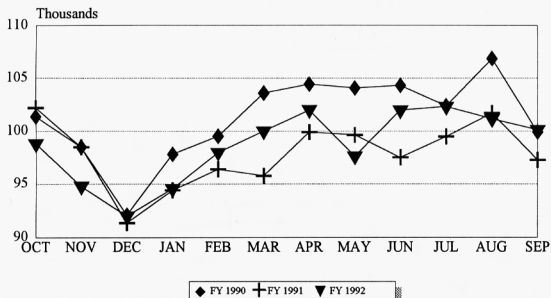


Figure 8



## **OPERATIONS**

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### **NATIONAL AIRSPACE SYSTEM (NAS) LOGISTICS SUPPORT - 1,323 Positions and \$175,024,000**

Workload in this activity is a direct result of ensuring the effective and efficient logistical support of air traffic and air navigational control facilities. The agency has embarked on a program of modernization that uses cradle to grave, life cycle acquisition processes. This is a structured process that allows for the acquisition, maintenance, and operation of National Airspace System (NAS) equipment in an efficient and economical manner. Approximately 30 percent of the required life cycle spare parts expenditure is funded through the F&E appropriation. The remaining 70 percent of spare parts and routine repair is funded within the Operations appropriation. This activity covers the logistics portion of NAS equipment maintenance and operations necessary to complete a year of the life cycle.

The FY 1994 funding request will provide \$5,000,000 for mandatory growth required to sustain NAS supply support (NAS Plan hand-off).

### **SYSTEMS MAINTENANCE - 10,579 Positions and \$866,436,000**

The Systems Maintenance activity provides for the maintenance, repair and engineering of over 29,000 facilities and equipment comprising the NAS including: air traffic control equipment, navigation and landing aids, flight service facilities, and support of FAA plant facilities. The introduction of new solid-state equipment and other new technologies resulting from the implementation of the Capital Investment Plan (CIP) presents this workforce with new challenges and resource requirements. CIP systems requiring new and expanded maintenance support in FY 1994 include: Automated Weather Observing System (AWOS) Data Acquisition system (ADAS); Automated Surface Observation System (ASOS), and Enhanced Traffic Management System (ETMS). In addition, the activity operates the Telecommunications Management and Operations (TM&O) Program which manages the expanding agency-owned telecommunications system in order to improve reliability and achieve projected savings associated with the implementation of a variety of new initiatives.



## OPERATIONS

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### **LEASED TELECOMMUNICATIONS - \$315,634,000**

Telecommunications to support and run the aviation system worldwide is funded by this activity. The FAA leases over 14,000 private line circuits to transmit radar data, voice grade data, and voice communication signals. While leased telecommunications rates have risen dramatically over the past 12 years, substantial cost savings/avoidance have been achieved due to implementation and utilization of FAA owned network resources such as the DATA Multiplexing Network, National Airspace DATA Interchange Network, Radio Communications Link, etc. Moreover, these resources have accommodated increasing new air traffic control (ATC) service requirements without commensurate cost increases.

The FY 1994 request provides for the continued implementation of Leased Interfacility NAS Communications Systems (LINCS) (circuit recompetition) as well as support to air traffic control and air navigation facilities and agency telecommunications.

### **AVIATION REGULATION AND STANDARDS - 5,348 Positions and \$343,086,000**

Civil aviation safety is promoted through this activity by assuring the airworthiness of aircraft and the competence of pilots, aviators and aviator technicians. In addition, the program includes the development, publication, and administration of the safety standards, rules and regulations applicable to airmen, aircraft, and operations involved in all United States civil aviation throughout the world, as well as foreign operations into and over United States territory.

Certification and inspection activities are associated with the operation and maintenance of aircraft by air carriers and the general aviation community, air agencies and all airmen (i.e., pilots, mechanics, etc.). Surveillance is also maintained over taxi operations, fixed-based operators, aerial applicators, training schools, and repair stations to determine that operators and maintenance are in conformance with safety regulations.

With regard to the development and administration of standards, the FAA's responsibilities begins with the development of the standards, continues with the examination of applications for certifications, and carries through to the engineering design and flight test phases. Following design approval, FAA's responsibilities extend to the approval of quality control procedures for production, determination that each product is safe for operations and the assurance that corrections are made for any difficulties encountered in actual service.



## **OPERATIONS**

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### **AVIATION STANDARDS - 1,346 Positions and \$116,373,000**

Aviation safety is promoted through this activity by assuring the adequacy of flight procedures and air operations and the evaluation of in-flight performance for compliance with prescribed standards. Monitoring signal accuracy emitted by the aids to air navigation, development of flight procedures for use of United States civil and military aviation and foreign air carriers operating in this country, and registration and recordation of airmen and aircraft certificates are also assured through this program. Aviation safety is further promoted by participating in accident investigations and by focusing on medical issues and occupational health responsibilities as they relate to the National Airspace System for both the aviation industry and the FAA. Aviation safety is improved by: ensuring the health of airmen; ensuring a drug and alcohol free aviation work force and eliminating drug use and abuse in commercial aviation; promoting education programs; improving the FAA work force effectiveness through healthful work environments for agency employees and the aviation industry; and ensuring standardization, compliance and consistency among all regions regarding ATCS and employee health standards for safety related positions.

### **AVIATION SECURITY - 997 Positions and \$69,193,000**

The Aviation Security Program operates under the concept of shared responsibilities among air carriers, airports, Federal, State, and local governments. The FAA is responsible for establishing and enforcing regulations, policies, and procedures; identifying potential threats and appropriate countermeasures; and in general, providing guidance for the safety of passengers, baggage, and cargo, and the safeguarding of the aircraft. The air carriers provide screening for passengers and baggage. The responsibility for maintaining a secure ground environment and for providing local law enforcement support for airline and airport security measures belongs to the security personnel of the airport operations.

The FAA conducts foreign airport security assessments on behalf of the Secretary of Transportation. Assessments consist of in-depth analyses of the security measures at airports. Currently, there are approximately 250 foreign airports that meet the assessment requirement. The Civil Aviation Security Program also develops and reviews policies for the security of FAA operations, resources, and facilities, including communications/telecommunications, automatic information security, personnel, and industrial security programs. The FAA's security program also supports Federal, State, and local law enforcement agencies engaged in the investigation and interdiction of drug smuggling.



## **OPERATIONS**

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### **NATIONAL AIRSPACE SYSTEM DESIGN AND MANAGEMENT - 529 Positions and \$58,523,000**

This activity covers a portion of the systems engineering, technical and administrative leadership for the \$31 billion (FY 1982-FY 2000) CIP. The program supports Research, Engineering and Development and Facilities and Equipment programs that will lead to development and implementation of a global aviation system designed to exceed user demand for increasing system safety, capacity, and productivity, and dedicated to achieving the mission of the FAA. The program also provides for the development and promulgation of national aviation policy, as it relates to the development and coordination of the overall FAA energy conservation initiatives.

The 1994 funding request supports the functions for the Associate Administrator for Contracting and Quality Assurance and the Technical Center that were transferred from the NAS Logistics Activity. These resources are for the procurement and implementation of the acquisition of material, equipment, and services for the NAS, interagency, and international programs.

### **ADMINISTRATION OF AIRPORTS - 522 Positions and \$41,258,000**

The Airports Program covers the identification, planning, development, capacity enhancement, and safety certification of the nation's system of public airports to serve the needs of civil aviation in the fifty states and territories. Principal activities in the program include: planning and promoting efforts to enhance airport capacity and reduce delays; participating in safety efforts at national and international airports; administering grants for the Airport Improvement Program; and certifying the safety of the nation's airports.

The Aviation Safety and Capacity Expansion Act of 1990 (P.L. 101-508) authorized the establishment of a passenger facility charge (PFC) by local authorities. PFC's will give public agencies, who own commercial service airports, access to an important source of revenue to fund needed capital projects which will enhance the safety and capacity of the nation's airports. Applications for authority to impose a PFC of \$1, \$2, \$3 and to use the PFC revenue must be approved by the FAA. Projects proposed may be small requiring less than 3 years to complete and cost less than \$200,000 or be as broad as requiring more than 30 years to complete and cost in excess of \$1.4 billion.

Funding in FY 1994 will support the FAA's continued emphasis on expansion and anticipation of the future needs of the airport system.



## **OPERATIONS**

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### **DIRECTION, STAFF AND SUPPORT SERVICES - 1,434 Positions and \$157,986,000**

The FAA's essential administrative and infrastructure services are supported in this program. Activities associated with the direction and management, public affairs, international aviation, legal, policy and plans, as well as requirements for administrative payrolls, communications, administrative supplies and other support services at the center, regional and overseas offices are funded in the program.

### **HUMAN RESOURCES MANAGEMENT - 1,457 Positions and \$272,830,000**

The administration of the agency's employee recruitment, development, training, compensation and labor-management relations activities are supported in the Human Resources Management Program. The most important goal of the program is to provide a cadre of highly skilled, competent, and motivated professionals to accomplish ongoing objectives in improving air safety while promoting aviation-related activities. Funding is provided for technical and management training programs; recruitment and placement of personnel; initiation of labor relations activities; targeting increased employee productivity; and administration of the Airway Science Grant Program intended to foster and encourage academic and industry participation in aviation education. The HRM activity includes a payment in excess of \$78 million to the Department of Labor for workers' compensation for former FAA employees.

### **HEADQUARTERS ADMINISTRATION - 574 Positions and \$52,230,000**

This activity supports all of the Washington headquarters administrative functions that establish policy and direct and develop programs, including the Executive Director for Acquisition and Safety Oversight and the Office of Aviation Safety. The administrative services include: Office of the Administrator and Deputy Administrator, Executive Directors, Policy and Plans, Accounting, Budget, Civil Rights, International Aviation, and Management Systems and Data Systems. The Office of Aviation Safety has oversight responsibility for safety within the FAA. Due to the realignment of the NAS Logistics activities in FY 1992, the Executive Director for Acquisition and Safety Oversight was moved into the Headquarters Administration activity as a base transfer in FY 1992.



## OPERATIONS

Table 3

### FY 1994 BUDGET REQUEST DOLLAR RESOURCES (Dollars in Thousands)

	FY 1992 <u>Actual</u>	FY 1993 <u>Estimate</u>	FY 1994 <u>Request</u>	FY 93-94 <u>Percent Change</u>
Operations of Traffic Control System	2,003,362	2,083,815	2,107,427	1.1%
NAS Logistics Support	204,462	170,854	175,024	2.4%
Maintenance of Traffic Control System	785,471	847,460	866,436	2.2%
Leased Telecommunications Services	317,572	323,396	315,634	-2.4%
Aviation Regulations and Certification	323,735	333,632	343,086	2.8%
Aviation Standards	115,023	121,586	116,373	-4.3%
Civil Aviation Security 1/	64,681	69,507	69,193	-0.5%
NAS Design & Management	23,516	55,309	58,523	5.8%
Administration of Airport Programs	40,799	40,906	41,258	0.9%
Direction, Staff & Supporting Services	152,138	157,010	157,986	0.6%
Human Resources Management	283,349	282,712	272,830	-3.5%
Headquarters Administration	<u>46,853</u>	<u>52,729</u>	<u>52,230</u>	<u>-0.9%</u>
<b>TOTAL OPERATIONS</b>	<b>4,360,961</b>	<b>4,538,916</b>	<b>4,576,000</b>	<b>0.8%</b>

1/ FY 1992 and FY 1993 includes no-year dollars.





## OPERATIONS

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### SPECIAL INTEREST WORKFORCE

#### Controller Workforce

- ➔ One of the FAA's highest and most essential priorities is to ensure that flying remains one of the safest and most efficient forms of transportation. The current workforce is doing an outstanding job. Safety has not been and will not be jeopardized.
- ➔ As of September 30, 1992, the controller workforce (CWF) employment was 17,982. Because overall traffic has been level, FAA is committed to maintaining a minimum CWF of 17,871 for FY 1993.

#### Flight Standards Staffing

- ➔ For FY 1994, Flight Standards end of year staffing level of 3,441 will be below the FY 1990 employment level of 3,479.
- ➔ Major program initiatives such as international expansion to provide certification and surveillance services to the global aviation community and Strategic Quality Management of all flight Standards programs will continue as planned.

#### Aircraft Certification

- ➔ For FY 1994, Aircraft Certification end of year staffing will be maintained at the pre-FY 1991 employment level of 848.
- ➔ The Aircraft Certification Service will continue to address enhanced activity and growth in international work, aging aircraft, and continued commonalty both here and abroad.
- ➔ Increased emphasis on internationalization in the certification process of civil aviation industries will continue to be a top mission priority. Continued operational safety, regulatory policy development and new certifications, appointments and approvals will ensure maximum aviation safety to the public.



## OPERATIONS

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### Field Maintenance Staffing

- Field maintenance technicians are responsible for maintaining and repairing facilities and equipment comprising the National Airspace System. The NAS includes the following major types of facilities: navigation and landing aids, radar, automation systems, and communication equipment. The workforce is responsible for the maintenance of physical structures and grounds.
- It is expected that the end-of-year employment level for FY 1994 will be comprised of 8,923 personnel in the field maintenance workforce, which is responsible for maintaining over 29,000 facilities. Of the 8,923 about 65 percent are electronics technicians.

### Civil Aviation Security Staffing

- In FY 1994, FAA will reach an end-of-year employment level of 852 in the Civil Aviation Security workforce.
- Aviation security personnel safeguard passengers, crew, aircraft, and airports from the threat of violence from hijacking, sabotage, and other criminal acts. These initiatives include implementation of effective security programs, use of Federal Air Marshals (FAM) and enhanced assessment and monitoring of foreign/domestic airports and air carriers. Some agents will perform Federal Air Marshal duties, and others will be utilized to support foreign airport assessments, U.S. and foreign airport/air carrier station inspections and assessments (including inspection and enforcement activity to ensure compliance with security requirements and compliance and enforcement of regulations on the shipment of hazardous materials). In addition, agents will be utilized to support the review and approval of foreign air carrier security programs, the implementation of explosives detection security programs, the development of critical terrorist threat information through intelligence analyses, and the protection of those traveling in air commerce.



## OPERATIONS

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Table 4

### SPECIAL INTEREST STAFFING End-of-Year Employment

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	1993 <u>EST</u>	1994 <u>EST</u>
Controller Workforce	16,436	16,832	17,226	17,721	17,982	17,871	17,871
Flight Standards Workforce	2,909	3,193	3,479	3,571	3,481	3,479	3,441
Aircraft Certification Workforce	733	751	806	854	837	862	848
Civil Aviation Security	478	511	627	810	852	881	852
Field Maintenance Workforce	8,646	8,687	8,904	8,994	8,995	9,160	8,923



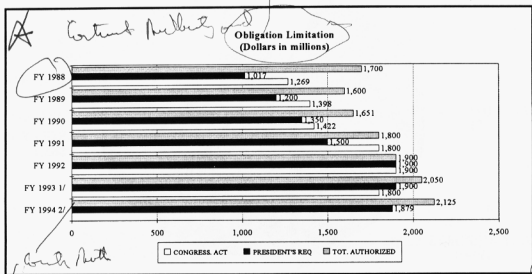


Healey

## GRANTS-IN-AID TO AIRPORTS

The FY 1994 request is for a \$1.879 billion obligation limitation to authorize funds for grants eligible airports in accordance with provisions contained in the Airport and Airway Improvement Act of 1982, as amended.

The Aviation Safety and Capacity Expansion Act of 1990 includes a provision to provide not less than 3.5 percent of AIP (discretionary funds) for the development of current and former military airports to improve the capacity of the national air transportation system. An estimated \$82.3 million will be available in both FY 1993 and FY 1994.



1/ NOTE: FY 1993 does not include \$250 million proposed in FY 1993 Economic Stimulus package.

2/ Requires authorizing legislation in FY 1994

**Figure 9**

### Letter of Intent

In FY 1988, the FAA was authorized to issue a letter of intent (LOI) for certain airport development projects. Under this provision, a sponsor may notify the FAA of an intention to carry out a project without Federal funds and request that the FAA issue an LOI. Reimbursements are provided to the sponsor in future years as the funds become available. The benefit to the sponsor is that they may proceed with a project without waiting for a grant, and, they may receive more favorable private financing (e.g., bond ratings) due to the announced Federal support for the project.

LOI's may be issued to cover work only at primary and reliever airports and the projects must enhance system-wide airport capacity. The FAA's commitments to date will reimburse airport sponsors a total of \$1,340.6 million (formula and discretionary) from FY 1993 through FY 2002, subject to fund availability



## GRANTS-IN-AID TO AIRPORTS

### AIRPORT IMPROVEMENT PROGRAM FY 1994 FORMULA (Dollars in millions)

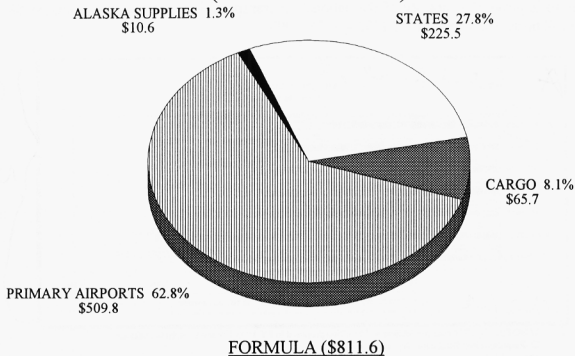
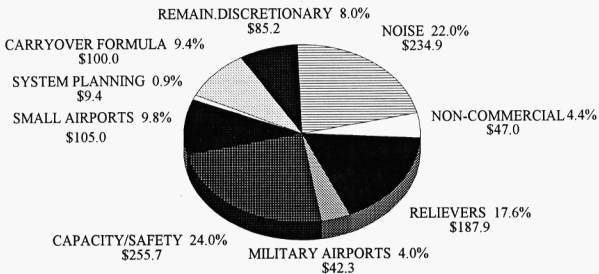


Figure 10



## GRANTS-IN-AID TO AIRPORTS

### AIRPORT IMPROVEMENT PROGRAM FY 1994 DISCRETIONARY GRANTS (DOLLARS IN MILLIONS)



DISCRETIONARY (\$1,067.4)

Figure 11







## FACILITIES AND EQUIPMENT

For FY 1994, \$2.5 billion, a 7.4 percent increase (\$174 million) over FY 1993 as enacted, is requested to fund planned facilities and equipment procurement and installations. The funding requested for FY 1994 supports the FAA's comprehensive Capital Improvement Plan (CIP) to modernize and improve the National Airspace System (NAS), and to improve air traffic control and airway facilities services.

Improving the NAS has many benefits outside of the FAA. F&E expenditures, in addition to providing infrastructure for continued growth in aviation activity, has positive impacts on national priorities including economic productivity, energy conservation, safety and security, environmental protection, and technological leadership. Examples of specific F&E project contributions to National Priorities and user benefits are presented below in table 5.

Project	Feature	Benefits	Principal National Priorities					
			Economic Productivity	Energy Conservation	Safety/Security	Environmental Protection	Technological Leadership	
En Route Projects								
Advanced Automation System	<ul style="list-style-type: none"><li>Improved system efficiency via increased user preferred trajectories and altitudes</li><li>Replaces obsolete automation equipment</li></ul>	<ul style="list-style-type: none"><li>Reduce User Operating Costs</li><li>Reduce Flight Delays</li><li>Increased User Preferred Trajectories and Altitudes</li></ul>	●	●				●
Oceanic Automation System	<ul style="list-style-type: none"><li>Decreased oceanic separation standards</li></ul>	<ul style="list-style-type: none"><li>Reduce User Operating Costs</li><li>Reduce Flight Delays</li><li>Increased User Preferred Trajectories and Altitudes</li></ul>	●	●				
Terminal Projects								
New Denver Airport	<ul style="list-style-type: none"><li>Service forecasted air traffic growth in the Denver area</li><li>Foster regional economic growth</li></ul>	<ul style="list-style-type: none"><li>Reduce User Operating Costs</li><li>Reduce Flight Delays</li><li>Regional Economic Growth</li></ul>	●					
ATCT/TRACON Modernization/ Replacement	<ul style="list-style-type: none"><li>Replace obsolete environmental equipment, aging facilities</li><li>Remove facility space constraints</li></ul>	<ul style="list-style-type: none"><li>Provide space for growth</li><li>Modernize environmental systems</li><li>Remove Environmental Hazards</li></ul>	●		●			
Terminal Air Traffic Control Automation	<ul style="list-style-type: none"><li>Provide terminal aircraft spacing automation</li></ul>	<ul style="list-style-type: none"><li>Reduce User Operating Costs</li><li>Reduce Flight Delays</li><li>Increase efficiency of terminal aircraft operations</li></ul>	●	●				●
Airport Surface Detection Equipment/ Movement Area Safety System/Surface Traffic Automation	<ul style="list-style-type: none"><li>Provide runway incursion indicators</li><li>Provide conflict alert for airport surface</li></ul>	<ul style="list-style-type: none"><li>Increased runway departure capacity</li><li>Improved airport safety</li></ul>	●		●			

**Table 5 - Benefits of F&E Investments and Impact on National Priorities**



## FACILITIES AND EQUIPMENT

Project	Feature	Benefits	Principal National Priorities					
			Economic Productivity	Energy Conservation	Safety/Security	Environmental Protection	Technological Leadership	
Flight Service/Weather Projects								
Aeronautical Data Link	• Improve air-to-ground communications	• Reduce Controller/Pilot workload • Increased efficiency • Enhanced safety • Increased capacity through error-free communications	●	●				●
Automated Weather Observing System	• Improved/more timely weather information	• Improved safety • Increased terminal capacity • Manpower savings	●		●			
Integrated Terminal Weather System	• Provide integrated timely weather products in terminal environment	• Decreased terminal delays • Improved safety	●	●				●
Aviation Weather Products Generator	• Provide integrated user weather graphics and forecast products in the en route environment	• Decreased en route delays • Improved safety	●	●				●
Ground-to-Air Projects								
Long Range Radar	• Replace obsolete long range radars	• Reduced maintenance and support costs • Improved safety	●	●	●			●
Next Generation Weather Radar	• Provide timely, accurate, and detailed ATC weather data	• Improved input to AAS • Increased safety • Increase fuel efficiency from improved weather data	●	●	●			●
Terminal Doppler Weather Radar	• Provide timely and accurate windshear data	• Increased safety • Decreased delays due to changing weather conditions	●		●			
Precision Runway Monitor	• Provide parallel approaches to runways spaced <4300' >3400' apart during IMC	• Save fuel during IFR weather • Increase IFR runway capacity • Reduce IFR delays	●	●				●
Precision Landing Systems (ILS/MLS/GPS)	• Provide more precision approaches in US • Replace aging equipment • Potential means to clear-up ILS Frequency congestion	• Decreased Delays • Save fuel • Capacity increase/operating cost savings from curved approaches	●	●				
Interfacility Communications Projects								
Radio Control Equipment	• Replace obsolete radio control equipment (VFSS and keying control equipment)	• Reduce maintenance costs • Improve operational performance	●		●			
Routing and Circuit Restoral	• Provide automatic restoration and re-routing communications capability	• Safety and Delay benefits from faster fault detection & restoral • Potential Leased Comm savings	●		●			
Maintenance and Operations Projects								
Remote Maintenance Monitoring System	• Provide more timely fault monitoring and equipment status information	• Decreased maintenance costs	●					
ARTCC Plant Modernization	• Modernize aged plant and structures • Improve energy systems • Eliminate environmental problems	• Energy conservation • Elimination of environmental hazards	●					
Fuel Storage	• Eliminate leaking tanks which pose environmental threat	• Comply with environmental pollution laws • Improve environment					●	
ATCT Safety Upgrades	• Bring ATC tower facilities into compliance with OSHA life, fire, and personnel safety standards	• Elimination of environmental hazards • Improve workplace safety			●	●		

**Table 5 - Benefits of F&E Investments and Impact on National Priorities-continued**  
**Budget in Brief - 28**



## FACILITIES AND EQUIPMENT

Project	Feature	Benefits	Principal National Priorities					
			Economic Productivity	Energy Conservation	Safety/Security	Environmental Protection	Technological Leadership	
Maintenance and Operations Projects								
Aircraft Fleet Modernization	<ul style="list-style-type: none"><li>• Provide aircraft equipment needed to meet flight inspection needs</li></ul>	<ul style="list-style-type: none"><li>• Upgrade avionics to new technology</li><li>• Reduce noise pollution</li><li>• Promote timely implementation of new navigation aids</li></ul>			●			
Computer Resources Nucleus	<ul style="list-style-type: none"><li>• Provide uniform, Agency-wide computing resource</li></ul>	<ul style="list-style-type: none"><li>• Provide timely, responsive, and economical ADP resource</li><li>• Increase productivity of programs and personnel</li><li>• Reduce procurement frequency ADP equipment</li></ul>	●					
Aviation Safety Analysis System	<ul style="list-style-type: none"><li>• Provide single safety related information data structure</li></ul>	<ul style="list-style-type: none"><li>• Improved access to more reliable and timely certification and safety information data</li></ul>			●			

**Table 5 - Benefits of F&E Investments and Impact on National Priorities-continued**

Funds requested for FY 1994 will provide for continued implementation of modernization projects such as the Advanced Automation System (AAS) designed to upgrade the system's air traffic control computer technology and the Voice Switching and Control System (VSCS) designed to modernize the system's outdated communications network.

At the same time, the requested funds would sustain the current infrastructure by making the capital investment needed to keep today's system operating until the late 1990's, when concurrent modernization efforts can put new equipment in place. Among numerous short-term requirements for funding are the consolidation and expansion of radar approach control facilities for all of southern California, relocation of radar approach control for Chicago's O'Hare Airport and surrounding airports, and replacement of obsolete radio control equipment at various control towers so that controllers can communicate with pilots without interruption. The requested funding would also provide FAA radar and related equipment for new capacity-enhancing airport facilities at Dallas/Ft. Worth and Denver, which will benefit not only the surrounding areas, but also improve traffic flow throughout the country.



## **FACILITIES AND EQUIPMENT**

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Major FY 1994 programs are: (\$ in millions)

<b>Advanced Automation System (AAS)</b>	<b>\$456</b>
<b>Voice Switching and Control System (VSCS)</b>	<b>232</b>
<b>System Engineering and Support Services</b>	<b>121</b>
<b>Long Range Radar (LRR)</b>	<b>30</b>
<b>Terminal Air Traffic Control Facilities - Replace</b>	<b>25</b>
<b>Microwave Landing System (MLS)</b>	<b>46</b>
<b>Flight Inspection Aircraft Procurement</b>	<b>38</b>
<b>Chicago Terminal Radar Approach Control Relocation</b>	<b>18</b>
<b>Airport Surveillance Radars (ASR)</b>	<b>44</b>
<b>Technical Support Services Contract (TSSC)</b>	<b>65</b>



## **FACILITIES AND EQUIPMENT**

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The Facilities and Equipment appropriation budget consists of five major budget activities which fund the FAA's efforts to modernize and improve air traffic control systems and airway facilities services. Summaries of those activities follow.

### **ENGINEERING, DEVELOPMENT, TEST AND EVALUATION**

This Activity includes programs which have migrated from the R,E&D appropriation, those programs requiring developmental efforts that have been started in F&E and are to continue in F&E (grandfathered), and those programs that are in acquisition phases required prior to Key Decision Point 4 (KDP-4) in accordance with the Office of Management and Budget (OMB) circular A-109. This effort does not duplicate any R,E&D program work. The acquisition phase tasks of determination of mission needs, identification and explanation of alternative design concepts, demonstration of alternative design concepts, and full scale developmental and limited production would be characteristics of programs in this activity.

The advanced automation system (AAS) will progress toward an FY 2002 completion date. Total requirements for this \$4,703 million multiyear program will result in improvement of the safety and efficiency of the NAS, provide the ability to handle the growing air traffic projected beyond the year 2000, and improve the productivity of the air traffic controllers. Delivery of Peripheral Adapter Module Replacement Item Systems (PAMRI) will continue to Air Route Traffic Control Centers (ARTCC) with testing and acceptance of already delivered systems. Software design and testing will continue. Operational test and evaluation will begin on the Initial Sector Suite System (ISSS) at the FAA Technical Center.

The Voice Switching and Control System (VSCS) is an integrated air/ground and ground/ground voice communication system that will meet future operational and maintenance requirements. During FY 1993, acceptance testing is planned to be completed and operational test and evaluation of the first prototype will be completed.

Other major initiatives continuing in FY 1994 include Microwave Landing Systems; aviation weather services improvement; and continuing FAA efforts to improve test and evaluation facilities.



## **FACILITIES & EQUIPMENT**

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### **PROCUREMENT AND MODERNIZATION OF AIR TRAFFIC CONTROL FACILITIES AND EQUIPMENT**

Funding will support the long range radar program to replace obsolete hardware with new radar; replace outdated Radar Microwave Link (RML) systems with new Radio Communication Link (RCL) to provide increased reliability of transmission; provide improvement to aviation weather services including Next Generation Weather Radar (NEXRAD) and continue improvements in other vital radar coverage and maintainability.

Initiatives in this activity will reduce delays and improve safety at congested airports. Funding will provide continued support for the establishment and improvement of the Airport Surveillance Radar (ASR) program; establish terminal aviation weather radar capability to detect microbursts and related windshear at additional airports; expand the Mode S surveillance capability; continue the precision runway monitor program to increase airport capacity; add automation enhancements to the Airport Surface Detection Equipment (ASDE) system to prevent and detect runway incursions and accidents; and complete the Automation Radar Terminal System (ARTS III A) program which provides conflict alerts between aircraft.

Consolidation of five Los Angeles Basin Terminal Radar Approach Control facilities (TRACON); the relocation of the Chicago TRACON; and the continued expansion of the Dallas/Fort Worth Metroplex program will result in enhanced safety and reduced delays by improving airspace utilization and increasing capacity.

The Flight Service Station (FSS) modernization program provides for an automated national aeronautical and meteorological information dissemination system to replace the labor-intensive manual technique of providing flight services. This automation program led to the commissioning of Model 1 full capacity Automated Flight Service Stations (AFSS) and the consolidation of existing FSS's. The second phase of automation involves a retrofit of the original Model 1 full capacity systems and the installation of other upgraded systems in the AFSS's.

Installation of Automated Surface Observing Systems (ASOS) at FSS locations and towered airports will continue in FY 1994. This program provides upgraded weather information services at locations where existing FSS's are scheduled to be consolidated or relocated to an AFSS.

In addition the continuing program to upgrade Very High Frequency Omnidirectional Radio Range (VOR) facilities with Distance Measuring Equipment (DME) requires additional funding in FY 1994. VOR and DME facilities are major components of the air navigation system and are used for en route air navigation and approach purposes by pilots to conduct safe flights and landings.



## **FACILITIES & EQUIPMENT**

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The FY 1994 budget continues work on the Instrument Landing System (ILS), and other navigational air programs such as the Approach Lighting System Improvement Program (ALSIP), Low Level Windshear Alert System (LLWAS), and Runway End Identification Lights (REIL).

Other initiatives in this activity include the Remote Maintenance Monitoring system (RMM), which will enable NAS subsystems to be monitored and controlled from central locations, thus achieving economies and efficiencies for the maintenance of various equipment and systems; replacement and establishment of terminal air traffic control tower facilities to meet current and future operational requirements; and upgrade airport traffic towers and TRACON's which require modernization. Establishment of the new Denver airport will require continued FAA support for facilities and equipment.

### **PROCUREMENT AND MODERNIZATION OF NON-AIR TRAFFIC FACILITIES AND EQUIPMENT**

This activity includes general facility support requirements which apply to a wide range of FAA installations. Continued funding support is required for the Computer Resources Nucleus (CORN) project, which will provide FAA with expanded, modern computer resources to accommodate increased operational and administrative programs. This activity also supports special initiatives such as hazardous material management which are necessary to comply with state and Federal regulations.

Requirements for this activity also include the acquisition and modification of aircraft which support the agency flight inspection of navigational aids, training, support, and research and development functions, and the procurement and installation of equipment related to the mission-readiness of the FAA fleet of aircraft. Included is funding to procure and equip aircraft for the support of international flight inspection requirements. Flight Inspection System enhancement will provide support in the areas of data handling, networking, data link and overall system integration to increase productivity; Aircraft Management Information System to provide enhancements to accomplish new record keeping and reporting requirements and the Flight Inspection Runway Position Update System to Complete the development and deployment of a self-contained aircraft positioning system.

Other programs funded under this activity are: renovation of airman and aircraft registry reporting system which includes support of the nation's drug control policy; NAS management automation program to facilitate planning, scheduling and tracking of activities required to implement the program defined in the NAS Plan through the year 2000; aviation safety analysis systems to capture safety related inspection data; and provide FAA employee housing.



## **FACILITIES & EQUIPMENT**

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### **FACILITIES AND EQUIPMENT MISSION SUPPORT**

This activity includes system engineering and integration, and transition engineering support contracts which provide technical and management support in all phases of NAS Plan implementation schedules.

### **PERSONNEL AND RELATED EXPENSES**

Funding for all personnel compensation, benefits, travel and related expenses associated with the Facilities and Equipment programs are budgeted under one consolidated activity. These funds directly support FAA personnel who are primarily responsible for NAS equipment installation and implementation.

In FY 1994, the FAA requests \$202 million to support the F&E workforce. The request level includes an increase to support growing travel requirements associated with engineering, installation and testing of new NAS equipment and systems. In addition, this activity will continue to support PCS costs directly associated with the actual consolidation or opening of various NAS facilities. In FY 1994 the budget includes \$15 million for one time moves in which a large number of Air Traffic and Airway Facilities personnel will be transferred to new facilities such as Southern California TRACON, Dallas/Forth Worth Metroplex, and the New Chicago TRACON.





## FACILITIES & EQUIPMENT

### F&E FUNDING HISTORY COMPARISON (Dollars in Millions)

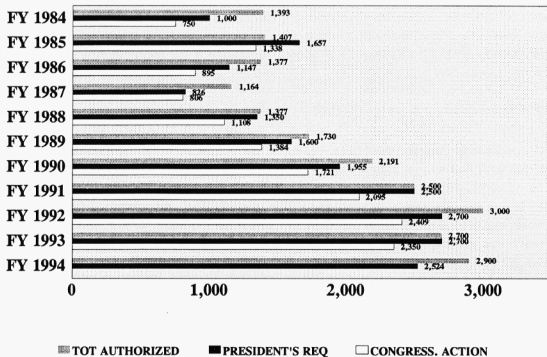


Figure 12





## **RESEARCH, ENGINEERING AND DEVELOPMENT**

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For FY 1994, \$250 million, an 8.7 percent increase (\$20 million) over the FY 1993 enacted level, is requested to support the Research, Engineering and Development (R,E&D) program. The R,E&D budget continues to foster new and innovative improvements in meeting the challenges of tomorrow's growing demands on our aviation system, limited capacity, changing work force, security threats and provides for a balanced increase in research in the development of new and across all ongoing technologies.

FAA's Research, Engineering and Development (R,E&D) program is an investment in the current and future air traffic control (ATC) system of the 21st Century which provides safe and efficient travel and commerce to the U.S. public and industry; new technologies indirectly strengthening the financial condition of the U.S. air carriers; and contributes to market stimulation and the creation of new markets nationally and internationally. The economic benefits of an ATC oriented R,E&D program are enormous for fuel conservation, operating costs, and maintaining world preeminence in ATC systems and safety. In addition, needed capacity improvements can be derived from ATM, TATCA, Oceanic, Data Link, AT Models, and simulation activities; pressures from the European community on increasing noise standards will be addressed by the environment and energy program; and expanded human factors initiatives will lead to further safety and efficiency.



## RESEARCH, ENGINEERING AND DEVELOPMENT

### R,E&D FUNDING HISTORY COMPARISON (Dollars in Millions)

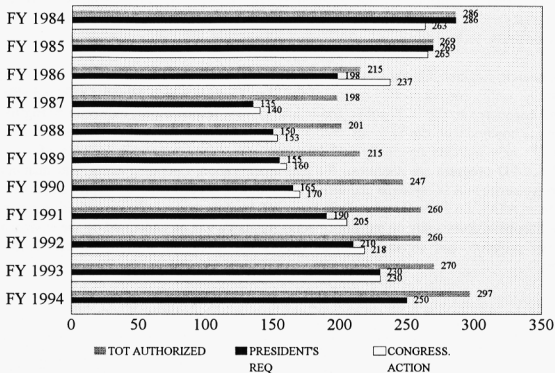


Figure 13



## RESEARCH, ENGINEERING AND DEVELOPMENT

### R,E&D REQUIREMENTS BY MAJOR ACTIVITY (IN PERCENT)

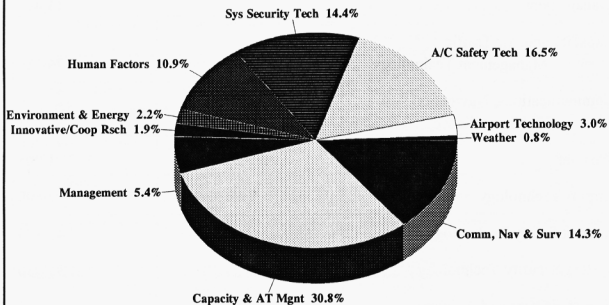


Figure 14



## RESEARCH, ENGINEERING AND DEVELOPMENT

Table 6

### SUMMARY OF REQUIREMENTS BY ACTIVITY/PROGRAM Dollars in Thousands

<u>Activity</u>	<u>FY 1994 Request</u>
Management	13,498
Capacity and Air Traffic Management Technology	76,939
Communications, Navigation and Surveillance	35,675
Weather	1,908
Airport Technology	7,509
Aircraft Safety Technology	41,175
System Security Technology	35,930
Human Factors and Aviation Medicine	27,256
Environment and Energy	5,385
Innovative/Cooperative Research	<u>4,725</u>
Total, All Activities	250,000

The FY 1994 R,E&D budget of \$250 million includes \$237,371 for base program requirements and \$12,629 as investment.



## RESEARCH, ENGINEERING AND DEVELOPMENT

### Relationship To National Priorities

The following table provides a listing of representative R&D program areas describing the features, benefits to users, and national priority to which they relate.

Program Area	Feature	User Benefits	Principal National Priorities
Air Traffic Management System	– Ability to Handle Increased Traffic	– Reduce Operating Costs – Reduce Flight Delays – Accommodate Requested Routes	Economic Health and Energy Conservation
Oceanic ATC Automation	– Ability to Handle Increased Traffic	– Reduce Operating Costs – Reduce Flight Delays – Accommodate Requested Routes	Economic Health and Energy Conservation
Terminal ATC Automation	– Ability to Improve Aircraft Arrival Capacities	– Reduce Operating Costs – Reduce Flight Delays	Economic Health and Energy Conservation
Airport Surface Traffic Automation	– Ability to Prevent Runway Accidents/Incidents	– Improve Safety on Airport Surface	Safety & Security and Economic Health
Aviation System Capacity Planning	– Ability to Provide Short Term Capacity Improvements	– Reduce Impact of Projected Traffic Bottlenecks	Economic Health and Energy Conservation
Traffic Alert and Collision Avoidance System	– Ability to Reduce Chance for Midair Collision	– Improve Safety in Air	Safety & Security and Technological Leadership
National Simulation Capability	– Ability to Validate Ideas – Ability to Engage in Applied Research	– Reduce Development Risk – Improve Human Factors	Technological Leadership and Economic Health
Aeronautical Data Link	– Ability to Fully Use Data Link Capability	– Reduce Miscommunication Between Pilot and Controller – Reduce Congestion in Communication Links	Safety & Security and Economic Health
Satellite Navigation	– Ability to Use Satellites in Aircraft Navigation	– Reduce Operating Costs – Reduce Delays	Economic Health and Technological Leadership
Terminal Area Surveillance System	– Ability to Define Next Generation Sensors	– Increase Terminal Area Capacity – Increase Airport Safety	Safety & Security
Weather Detection/Dissemination	– Ability to Reduce Impact of Weather	– Reduce Delays Due to Weather – Reduce Operating Cost	Economic Health and Safety & Security
Airport Technology	– Ability to Improve Airport Planning and Design	– Reduce Airport and Airline Operating Costs – Reduce Airport Surface Accidents	Economic Health and Safety & Security
Aircraft Systems Fire Safety	– Ability to Improve Fire Detection and Suppression	– Reduce Fire Related Injuries and Deaths	Safety & Security
Aircraft Crashworthiness	– Ability to Increase Passenger Protection From an Accident	– Reduce Crash Related Injuries and Deaths	Technological Leadership and Safety & Security
Propulsion and Fuel Systems	– Ability to Increase the Safety, Reliability, and Durability of Engine Installations and Fuel Systems	– Enhance Airworthiness – Reduce Accidents	Technological Leadership and Safety & Security

Table 7



## RESEARCH, ENGINEERING AND DEVELOPMENT

Program Area	Feature	User Benefits	Principal National Priorities
Flight Safety/Atmospheric Hazards Research	<ul style="list-style-type: none"> <li>Ability to Improve Methods for Dealing With Ice, Lightning, and Other Hazards</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Accidents</li> <li>Develop Criteria for Aircraft Design</li> </ul>	Technological Leadership and Safety & Security
Aging Aircraft	<ul style="list-style-type: none"> <li>Ability to Detect, Control and Prevent Aircraft Structural Weaknesses</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Accidents</li> <li>Develop Criteria for Aircraft Design</li> </ul>	Safety & Security and Economic Health
Aircraft Catastrophic Research	<ul style="list-style-type: none"> <li>Ability to Prevent Catastrophic Aircraft Failures</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Crash Related Injuries and Deaths</li> <li>Reduce Hull Losses</li> </ul>	Safety & Security and Technological Leadership
Threat Detection	<ul style="list-style-type: none"> <li>Ability to Improve Weapons and Explosives Detection</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate Terrorism</li> <li>Increase Public Confidence</li> </ul>	Safety & Security and Technological Leadership
National Airspace System Security	<ul style="list-style-type: none"> <li>Ability to Evaluate Security Improvement Ideas</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Security Threats</li> </ul>	Safety & Security
Aircraft Hardening	<ul style="list-style-type: none"> <li>Ability to Reduce Damage From Explosives</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Explosive Related Injuries and Deaths</li> <li>Reduce Hull Losses</li> </ul>	Safety & Security and Technological Leadership
Human Factors	<ul style="list-style-type: none"> <li>Ability to Reduce Human Errors or Inefficiencies</li> </ul>	<ul style="list-style-type: none"> <li>Reduce Human Caused Accidents, Incidents and Inefficiencies</li> </ul>	Safety & Security and Economic Health
Environment and Energy	<ul style="list-style-type: none"> <li>Ability to Reduce Noise and Air Pollution</li> <li>Ability to Conserve Fuel</li> </ul>	<ul style="list-style-type: none"> <li>Improve Air Quality</li> <li>Reduce Noise</li> <li>Reduce Fuel Consumption</li> </ul>	Energy Conservation and Environmental Protection
Innovative/Cooperative Research	<ul style="list-style-type: none"> <li>Ability to Jointly Develop New Ideas</li> </ul>	<ul style="list-style-type: none"> <li>Stimulate Market Productivity</li> <li>Increase Technology Injection</li> </ul>	Technological Leadership and Economic Health

**Table 7 (Cont.)**





## **AIRPORT AND AIRWAY TRUST FUND**

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The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) (26 U.S.C. 9502) as amended by the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), provides for the receipts received in the Treasury from the 10 percent passenger ticket tax and certain other taxes paid by airport and airway users to be transferred from the general fund of the Treasury to the Airport and Airway Trust Fund (AATF). In turn, appropriations are authorized from this fund to meet obligations for airport improvement grants, facilities and equipment, research, and a portion of operations.

Section 502 of Public Law 102-581 (Airport and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992) stipulated that the revenue from the 25 percent increase in air passenger ticket tax and the freight waybill tax (authorized by the Revenue Reconciliation Act of 1990) should remain in the general fund for the period December 1, 1990 to December 31, 1992. The net impact of this stipulation is to redirect \$1.8 billion in revenues back to the general fund from the AATF. Since most of that money was already in the Airport and Airway Trust Fund at the time of the law's enactment, the Treasury initiated a \$1.64 billion transfer from the trust fund into the general fund in January 1993.

The AATF uncommitted balance was \$6.9 billion at the end of FY 1992. It is projected to decline to \$4.4 billion by the end of FY 1993 and to \$ 3.98 billion by the end of FY 1994.

Public Law 102-581 extended the FAA's programs over different periods of time, placing the agency's accounts on separate reauthorization cycles. The authorization for Airport Improvement Program expires October 1, 1993. Authorization for Research, Engineering and Development expires October 1, 1994 and authorizations for Facilities and Equipment and FAA Operations expire October 1, 1995.

Current rate for aviation related taxes appropriated to the AATF are:

Domestic passenger tickets:	10 percent
Freight waybill:	6.25 percent
Non commercial gasoline:	\$.15 per gallon
Non commercial jet fuel:	\$.175 per gallon
International departure:	\$6 per enplanement



## AIRPORT AND AIRWAY TRUST FUND

### PERCENT OF FAA PROGRAMS FINANCED BY USERS

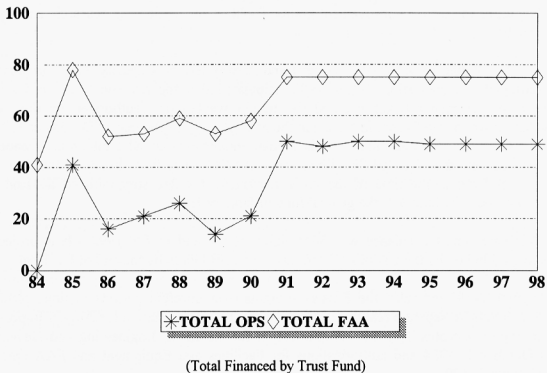


Figure 15



## AIRPORT AND AIRWAY TRUST FUND

### TRUST FUND SHARE OF FAA COSTS

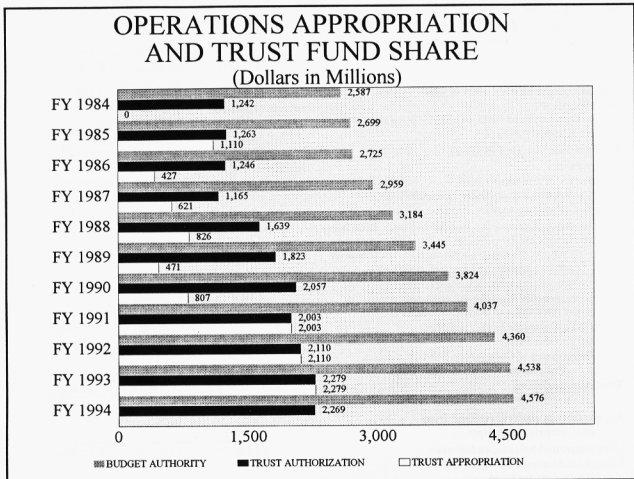


Figure 16



## AIRPORT AND AIRWAY TRUST FUND

**Table 8**

### Amount Available for Appropriation (Dollars in Thousands)

	FY 1992	EST FY 1993	EST FY 1994
Unappropriated balance, start of year	11,072,820	10,538,348	7,868,603
Revenue	5,918,368	2,710,785	6,553,064
Shift to General Fund (P.L. 102-581)		1,797,278	
General Aviation Revenue			18,245
Total available for appropriation	<u>16,991,188</u>	<u>15,046,411</u>	<u>14,439,912</u>
Appropriation			
Facilities and Equipment	(2,409,000)	(2,350,000)	(2,417,282)
Facilities and Equipment Investment			(106,718)
Research, Engineering and Development	(218,135)	(230,000)	(237,371)
Research, Engineering and Development Investment			(12,629)
Grants-in-Aid for Airports			
Appropriation to liquidate contract authority	(1,620,000)	(2,000,000)	(2,184,800)
Appropriation to liquidate contract authority investment			(15,200)
Grants-in-Aid for Airports (economic stimulus)		(250,000)	
Trust fund share of FAA Operations	(2,109,625)	(2,279,321)	(2,268,750)
OST: Payments to air carriers	(38,600)	(38,600)	(38,600)
OST: GSA Rent	(29,887)	(29,887)	(37,114)
Department of Commerce: NOAA.			
Operations, Research, and Facilities	(35,389)	(0)	(0)
Total Appropriations	<u>(6,460,636)</u>	<u>(7,177,808)</u>	<u>(7,318,464)</u>
Adjustments in expired, restored from unappropriated receipts	7,796		
Unappropriated balance, end-of-year	10,538,348	7,868,603	7,121,448
Unexpended balance brought forward			
U.S. Securities (par)	15,193,672	15,090,296	12,989,262
Cash	68,884	113,812	75,408
Balance of fund, start of year	<u>15,262,556</u>	<u>15,204,108</u>	<u>13,064,670</u>
Cash income during the year			
From excise taxes:			
Passenger ticket tax	4,012,360	4,581,211	4,966,772
Waybill tax	249,167	260,080	279,224
Fuel tax	166,720	130,926	169,378
International departure tax	231,326	249,224	267,290
Refund of taxes	(14,590)		0
General Aviation Revenue			18,245
Shift to General Fund		(1,797,278)	
Intrabudgetary transactions			
Interest on investments	1,273,385	1,083,900	870,400
Total annual income	<u>5,918,368</u>	<u>4,508,063</u>	<u>6,571,309</u>



## AIRPORT AND AIRWAY TRUST FUND

Table 8 (Cont.)

### Amount Available for Appropriation (Dollars in Thousands)

Cash outgo during the year			
Federal Aviation Administration			
Grants-in-Aid for Airports	1,672,126	2,071,800	1,783,880
Grants-in-Aid for Airports Investment			5,472
Grants-in-Aid for Airports Economic Stimulus		34,000	106,000
Facilities and Equipment	1,884,526	1,959,500	2,117,076
Facilities and Equipment Investment			21,344
Research, Engineering and Development	214,397	242,100	248,582
Research, Engineering and Dev Investment			7,577
Operations	2,109,633	2,279,313	2,268,750
OST: Payments to Air Carriers	30,859	30,901	38,600
OST: GSA Rent	29,887	29,887	37,114
Department of Commerce: NOAA	35,389	0	0
Total annual outgo	<u>5,976,817</u>	<u>6,647,501</u>	<u>6,634,395</u>
Unexpended balance carried forward			
U.S. Securities (par)	15,090,296	12,989,262	12,926,176
Treasury balance	113,812	75,408	75,408
Balance of fund, end of year	<u>15,204,108</u>	<u>13,064,670</u>	<u>13,001,584</u>
Commitments against unexpended balances:			
Appropriated but not expended	(4,665,760)	(5,196,067)	(5,880,135)
Committed to future liquidating cash appropriation			
to liquidate outstanding obligations (contract authority)	(2,893,540)	(2,693,540)	(2,372,540)
Unobligated balance of contract authority	<u>(772,823)</u>	<u>(772,823)</u>	<u>(772,823)</u>
Uncommitted balance, end of year	<u>6,871,985</u>	<u>4,402,240</u>	<u>3,976,086</u>

*Not used to be carried over*





## FISCAL YEAR 1993 FUNDING

Table 9

### AMOUNTS AVAILABLE IN FY 1993 (Dollars in Millions)

	FY 1993 President's Budget	FY 1993 Enacted	Difference
Operations	\$4,606	\$4,538	-\$68
General	(1,415)	(2,259)	844
Trust	(3,191)	(2,279)	-912
Grants-in-Aid to Airports			
Obligation Limitation 1/	1,900	1,800	-100
Facilities and Equipment	2,700	2,350	-350
Research, Engineering and Development	<u>230</u>	<u>230</u>	<u>0</u>
Total Amounts Available	\$9,436	\$8,918	\$518

1/ Excludes \$250 Million Stimulus Supplemental.



## OUTLAYS

Table 10

### Summary of Outlays (Dollars in Thousands)

<u>Appropriation</u>	<u>FY 1992 Actual</u>	<u>FY 1993 Estimate</u>	<u>FY 1994 Estimate</u>
Operations (Trust Fund)	4,386,971	4,507,000	4,564,340
(General)	2,109,633	2,279,313	2,268,750
	2,277,338	2,227,687	2,295,590
Facilities & Equipment	1,884,526	1,959,500	2,117,076
Investment	0	0	21,344
Research, Engineering & Development	214,397	242,100	248,582
Investment	0	0	7,577
Grants-in-Aid to Airports	1,672,126	2,071,800	1,783,880
Stimulus Supplemental	0	34,000	106,000
Investment	<u>0</u>	<u>0</u>	<u>5,472</u>
TOTAL	8,158,020	8,814,400	8,854,271